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Global Beef Marketing Opportunities

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Introduction

Over the last several years US beef production has experienced significant growth in globalization. This globalization is sometimes hard to define but in general the US has seen US beef companies open businesses in foreign markets as well as foreign companies establish business in the US. The type of global beef businesses range from suppliers of beef genetics via semen and embryos to processors and distributors of finished high quality beef products. Likewise raw materials, feed and production technologies may be sourced all over the world. This paper will discuss several of the factors that describe this globalization. Fundamentally beef exports contribute significant value to the US beef industry. Beef export value can be influenced by cattle genetics, nutrition, animal handling, food safety, product specification, production and processing efficiency and other factors.

Feeding the World

In an ever changing world we see a decline in agricultural land but greater agricultural production efficiencies, an abundance of technology and many other factors that contribute to farmer's and rancher's ability to provide food to a growing world population. The National Geographic Magazine (Kunzig, 2011) showed that in 1960 there were about 3 billion people on earth which grew to 7 billion in 2011 and estimated the population will be 8 billion in 2030. This magazine further estimates that global food production will need to increase 70-100% in the next 40 years which will require numerous scientific advancements, many government policy shifts and societal change. The National Geographic article also indicates that the world gross domestic product (GDP) in 1980 was $28.9 trillion and grew to $72.5 trillion in 2011 and estimated the GDP in 2030 to be greater than $150 trillion. About every 20 years the GDP doubled. The increasing GDP coupled with a growing population would indicate a portion of the world population will have more disposable income and purchasing power for high quality food. Many societies will have the opportunity to move from a cereal based diet to more of a meat based diet. These factors provide a great future for increased consumption of beef products.

When pre capita consumption of beef in various countries is compared to a country's GDP (CIA World Fact Book, FAO and OECD) we see countries like China, Russia,

Mexico, S. Korea, Taiwan, Japan and even the EU-27 as valid candidates to have sufficient disposable income for increased beef purchases. With greater disposable income consumers in some of these countries have a greater opportunity to increase their beef consumption and create greater demand for imported beef.

In some countries there is a significant portion of the population moving from a farming lifestyle to a more profitable and perceived easier lifestyle in cities. A high cost of agriculture production compared to the value of land is a common reason for farmers to rethink their livelihoods. In some cases increased cost due to compliance to environmental controls, animal welfare rules and high feed costs has caused some farmers to sell their land and move to cities to find different and less stressful careers. However, there are some regions where agriculture will continue to be a viable enterprise. Figure 1 shows the relationship between the percent of world population and arable land per person by regions (CIA World Fact Book, FAO and USMEF). Regions such as South America, North America, Middle East and Oceania have a large amount of arable land compared to their population. With current economic trends these will be regions that will feed the world in the future. Needless to say Mother Nature will cause challenges in these regions with weather and seismic issues and in some of these regions farmers will also be subject to increased environmental regulations. However, information presented at the Global Conference on Sustainable Beef

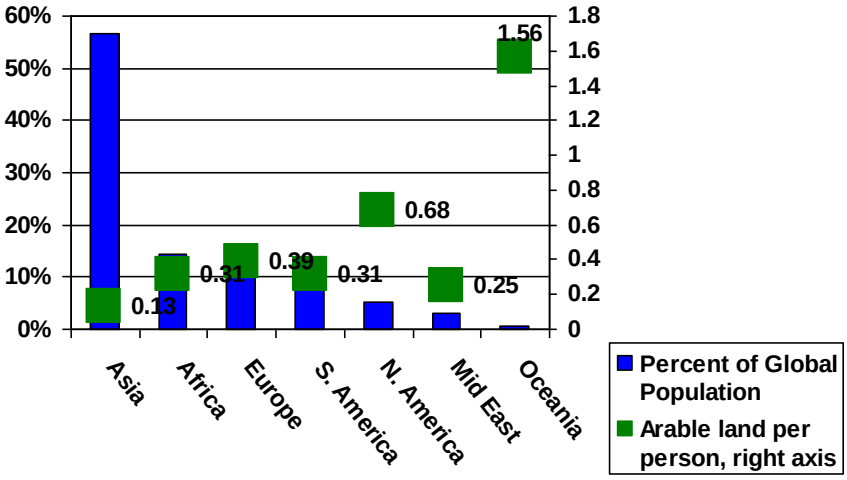

Figure 1 Population and Land

showed that modern cattle feeding practices utilizing grain sources are less damaging to the environment and provided greater sustainability than grass feeding production.

Information from the Sustainable Beef Resource Center (Elam and Preston, 2004) has shown that the United States is the most efficient country in cattle production. Scientific research and knowledge coupled with excellent institutions of higher learning have established decades of information transfer to cattle farmers, ranchers, feedlot operators and beef processors. These producers and processers have tetra bytes of genetic, nutritional, reproduction, food safety, animal welfare, production

and processing efficiency information close at hand. Likewise they have some of the very best animal health technology available to them. Figure 2 shows the percent change that has occurred since 1955 to 2005. Elam and Preston (2004) indicate that this change is largely due to the availability and use of Animal Health products that

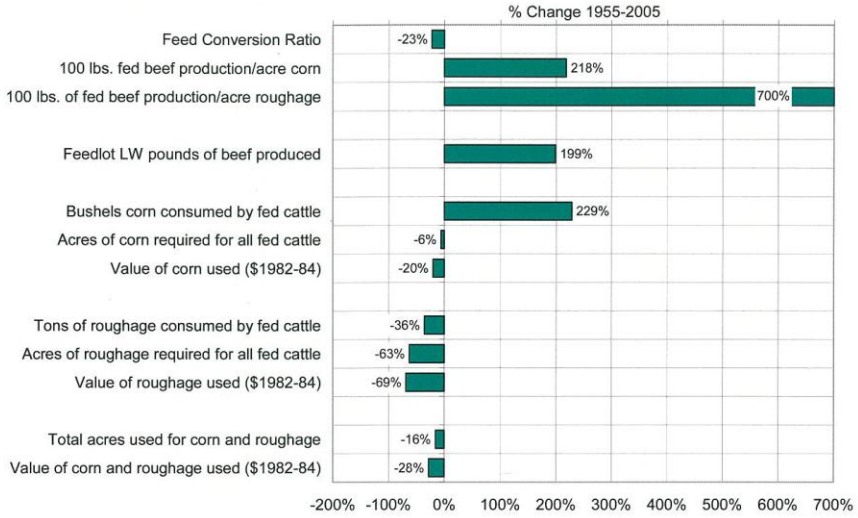

Figure 2 Value of Productivity Gains

increase productivity and efficiency but reduce costs, hence greater value to the producer, processor and the consumer.

Another key factor that positions the US as one of the countries that will feed the world is it will increase its beef production over the next 5-10 years. The OECD and FAO estimates that among the top world exporters the US and Brazil will show steady increases in beef production into 2020. The US will most likely have a slight decrease in production in the next 2-3 years but in the long run will show an increase in productivity. Other key exporting countries such as India, Argentina, Australia, Mexico and Canada will have increases but at a lower rate than Brazil and the US. Similarly several of our key trading partners will have greater demand for beef which will result in increased imports. Estimates from the World Trade Atlas show that over the past 3 years imports have increased by 45% in the Middle East, 16% in South Korea and 25% in the ASEAN region. Economic and social conditions in these regions suggest that this demand will continue for several years. One of the most important factors that will keep the US as a leading exporter is the value of the US dollar. Current US economic conditions allow for a lower valued US currency compared to the currencies in other countries. When the US dollar is valued lower than the currency in any of our trading partners there is greater purchasing power for US goods.

Although this is probably an incomplete list of reasons, this list does provide reasonable qualifiers for the US to be one of the key regions that will feed the world in the future. US beef will be one of the key food products that will be part of the world's food basket.

Value of Beef Exports

Just prior to Christmas in 2003 the US experienced a case of Bovine Spongiform Encephalopathy (BSE) which resulted in many trading partners closing their borders to US beef imports. Over the next several years the US beef industry, USDA and the US Trade Representative worked diligently to re-open these markets. Even today there are still several countries that have some form of restrictions on US beef due to the 2003 BSE incident. Figure 3 shows the recovery of beef exports since the BSE incident and a forecast of its growth into 2015 (USMEF).

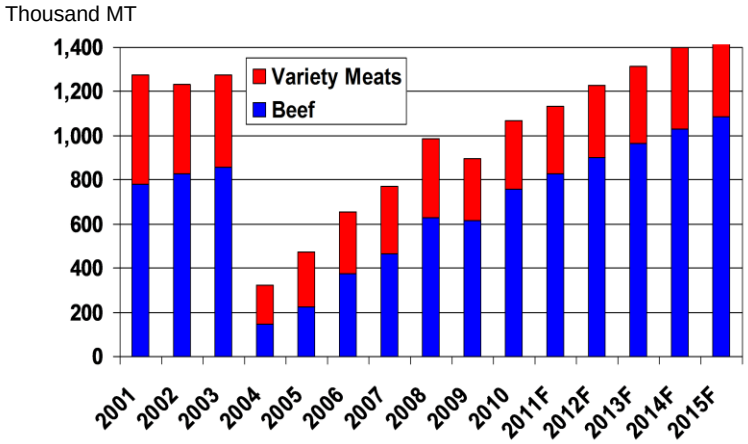

Figure 3 US Beef Exports Recovery

This chart shows that full recovery of volume could occur in 2013 however, with the current export rate that recovery may be sooner. The recovery of the product value was much quicker due to higher prices in foreign markets.

Figure 4 shows the recovery based on the value of exports per head of beef slaughtered.

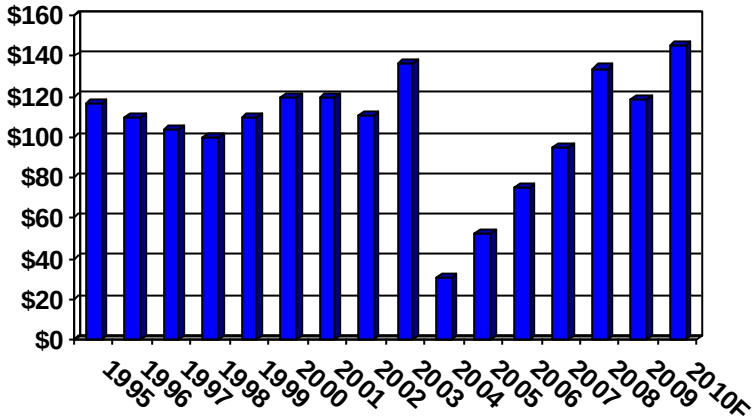

Figure 4 Value of Exports per Head Slaughtered

In 2010 the value per head of beef exported was about the same at it was prior to BSE in 2003. The value per head of exported beef in 2010 was higher than the values in 2004 through 2009. Estimates in 2011 show that beef exports may contribute more than $200.00 per head. Clearly foreign market demand, the lower valued US dollar and improved market access has contributed to increased exports and greater return to US processors and producers.

High Quality Beef

The unique flavor, tenderness and wonderful eating experience of US beef defines it as a "High Quality" beef and creates demand for this product world wide. The US Meat Export Federation estimates that over 60 countries in the world demand this unique product. Many factors contribute to the meaning of High Quality such as grain fed, genetically managed, high food safety standards, produced under quality management, consistent supply and versatility. Very few competitors are able to provide beef products that can equally compare to US beef. Some competitors produce beef in a variety of environmental and production systems such as grass feeding coupled with beef genetics that is not really conducive to flavorful and tender meat. Other production systems are seasonal and only allow fresh chilled beef certain times of the year and the rest of the year they can only supply frozen product that has been in storage since the production season. US beef tends to be more versatile as compared to its competitor's beef. US processors provide meaningful customer service and offer a large variety of fresh chilled and frozen product specifications that work well in many retail and food service markets on a year round basis. However, the US beef processors experience some challenges as some competitors offer greater product integrity and packaging options. Another key factor that differentiates US beef from other countries' beef is US beef may be classified by the USDA Grading system. US Prime, Choice and Select are recognized world wide as high quality; grain fed beef which is tender and flavorful. US beef does complete from a quality perspective with a few domestic production systems such as Wagyu beef in Japan and Honwoo beef in South Korea. These breeds raised under intensive grain feeding will also produce very high quality beef that excels in tenderness and flavor. Because these are domestic brands they are always valued higher than US beef. However, these high prices tend to keep US beef prices higher in those selected markets as consumers can purchase similar quality product to the domestic product.

Maximizing the yield from a variety of beef cuts is also key factor that generates higher values for products exported to foreign markets. As mentioned earlier the lower valued US dollar compared to the foreign currencies allow for greater purchasing power of US products. Hence foreign market may pay more for certain US cuts than what can be achieved in the US market. Some popular cuts are in such high demand in foreign markets that virtually all US carcasses donate this cut to the foreign market. For example, the short plate and short rib are very high demand items in the Asian markets and nearly all US cattle produce this cut for this market. Due to

minimal demand in the US, variety meats and offals are other items that are nearly 100% marketed in foreign markets.

Market Access Limitations

Seven years post incident of finding of BSE in the US beef herd the US continues to experience ill effects of gaining full market access. USDA and USTR continue to negotiate with several key markets for full beef access. Fundamentally key markets like Japan, China, Mexico and China have not completely opened their borders to US beef at the same level of access that was available before December 23, 2003. USMEF estimates that over 14 billion dollars in potential value has been lost during this period. The primary reason most countries have not completely opened their borders if they will not allow beef from cattle that are over 30 months of age. Japan has even tighter restrictions by not allowing beef from cattle over 20 months of age. Countries have varying reasons for these restrictions but most feel there is too much risk and concern over consumer perception if they allowed meat from the older aged cattle. In most cases countries follow the international standards (World Organization for Animal Health-OIE) recommended for international trade. The OIE recommendations provide guidance to countries for management of their animal disease situation so that they have an opportunity to trade in foreign markets. By the same token, importing counties can use these recommendations to feel comfortable in trading with other countries. It is unfortunate that some countries take exception to the OIE recommendation by not recognizing the older animals as acceptable even if the exporting country are correctly following the international standards.

Some issues of large concern in the US only have minimal impact on trade in some foreign markets. Food borne illness due to microbiological pathogens and animal welfare issues are currently large concerns in the US but are not big issues with some of our trading partners. However, there are some trends were foreign government regulators are beginning to evaluate and implement some border and testing protocols for basic microbiology criteria. In some cases the criteria may have a very low or zero tolerance. Animal welfare has minimal attention in most foreign markets with the exception of Europe. There are some commercial applications in foreign markets such as the 5 step animal welfare criteria developed by Whole Foods Supermarkets.

Other concerns that create challenges for international trade of US beef include foreign animal disease control, chemical residues and growth promotants. Foreign animal disease remains largely regulated by trading partners based on World Organization for Animal Health recommendations. The United States has one of the most robust foreign animal disease control systems in the world regulated USDA APHIS with cooperation by the US beef industry. The BSE case in 2003 brought several challenges to the US animal disease control system and resulted in several new control and surveillance rules and production/processing procedures. The US beef industry will need to continue development and strengthening of current bio-

security systems as risks of foreign animal disease remains possible due to greater movement of animals, humans, equipment and food products from foreign markets.

Since 1996 The European Union has not allowed meat that has been derived from livestock treated with hormonal growth promotants or b agonists. After considerable bantering between the EU and the US, the EU lost a WTO case on growth promotants but US beef exports to the EU have increased significantly even though the EU continues to enforce the hormone ban. In exchange for maintaining the hormone ban the EU allowed a much larger high quality beef quota at zero duty for US beef products. The reason the EU has such tight restriction on growth promotants is they follow the philosophy of the "precautionary principle". The precautionary principle suggests that any compound used in production or processing cannot create any risk to a consumer. Even when the EU is shown detailed scientific data they still will not accept certain technologies because the scientific evidence cannot show zero risk. On the other hand, many countries will use the CODEX Alimentarius maximum residue levels (MRL) for some of these animal health compounds. They may also use standards set by the US FDA or may establish standards on their own. Standards that are based on CODEX or in country criteria may be different (stricter) than the US standards which may result in rejected export product, possible facility de-listings and the potential for the country to be ineligible to export to the trading partner.

A Changing Supply Chain

Over the past 25 years cattle producers and beef processors have become more creative in developing marketing programs that create diversity in the product they produce. Production techniques such as utilizing specific genetics in combination with grain feeding programs has established unique high quality beef programs different than beef that receives USDA beef grades. Angus beef programs are a good example of this type of differentiation. Other production programs such as Natural have success in the US but are difficult to establish in foreign markets because the interpretation and understanding of the natural criteria is difficult to explain. Processor specifications have been well established over several years of development in foreign markets. Beef cuts such as the short rib and short plate have been developed into premier products in some Asian markets after several years of specification development and nurturing relationships with foreign customers. Today the US Meat Export Federation estimates that over 90% of the fed cattle harvested in the US will donate these cuts to the foreign markets. If these cuts were not produced specifically for the Asian markets they would most likely remain a cut used in US ground beef. Many other criteria are utilized by producers and processors in the marketing of various brand names which are also very popular in many foreign markets. Those brands that tell a unique story about the production of the cattle are very popular in some markets. The "romance' and uniqueness of cattle raised on the ranges of the US to produce high quality beef is popular image for many foreign consumers.

There is a growing trend for international retailers and food service companies to establish private standards. Many of these multi-national companies must deal with food safety, nutritional labeling, and food ingredients and in some cases animal welfare regulations that differ from country to country where they have businesses. Recently many of these companies have established private standards that meet all standards for all countries. This also allows these companies to source food material from a large worldwide inventory of suppliers and producers. Figure 5 (Farm Foundation, 2004) shows the top eight retail supermarket companies world wide based on annual sales.

Company	Stores Owned	Sales ($Bill.)	Countries of Operation
Wal-Mart (US)	5,164	244	12 Countries including the US
Carrefour (FR)	10,704	65	31 Countries including the US
Ahold (NE)	9,407	59	26 Countries including the US
Kroger (US)	3,667	52	US only
Metro (GR)	2,411	49	28 countries
Tesco (UK)	2,294	40	11 countries including the US
Costco (US)	400	38	7 countries including the US
Albertsons (US)	1,688	36	US only

Figure 5 Top Global Supermarket Companies

Many of these companies have business in many countries including the US. Since these companies have holdings in the US, American cattle producers and processors inherently supply these multinational companies and may already comply with the private standards established by these companies. These private standards are usually based on International Organization for Standardization (ISO) which provides third party oversight on production and processing criteria. USDA Agricultural Marketing Service Process Verified Programs are ISO based and in many cases utilized as the third party verifier for many international private standards.

Bar codes are readily recognized by consumer all over the world. Nearly all products sold in retail outlets throughout the world today have a Universal Product Code. The Universal Product Code is an international standard for product tracking based on criteria under the Global Data Synchronization. This product coding system is also widely used on wholesale products under the GS1-128 codes. This entire product numbering and coding system connects many business functions from the movement of product from manufacturer to consumer. Inventory control, ordering, purchasing and payment are functions that are encompassed within this system. Although the bar

coding system was not originally designed to facilitate recalls it is widely used as a primary method for tracking product for recall purposes. This coding system was primarily designed for manufactured goods, however the European Union is in process of utilizing this system to track beef products from birth to consumer.

Some countries including the US struggle in securing a viable traceability system. Globally traceability is utilized in a variety of forms. The ability to track animals for disease control is the most common regulatory reason for traceability. Some countries also require that the traceability is connected to a product tracking system. Some companies are requiring traceability as part of certain private standards such as food safety, animal welfare and product quality and specifications. Commercially some businesses include traceability as part of production standard in marketing of branded programs.

The United States tends to lags behind competitors and trading partners in implementing a traceability program for animal disease control. Tonsor et. al. 2011 showed that the US and India were the only major exporting countries that did not have a viable animal traceability program. This study also showed the US tended to have more restrictions than other exporting countries (mainly due to BSE) imposed by trading partners. The US has addressed some of these individual country restrictions by utilizing USDA AMS Process Verified Programs (PVP). A specific PVP Export Verification programs is required for export of US beef to the European Union, Japan and Hong Kong which have elements of a traceability program. The United States lack of a regulated mandatory program has provided an opportunity for some international competitors to use traceability as point of differentiation in marketing programs. Some Australian advertising in Japan and Korea use slogans such as “Traceability You can Trust”. This type of advertising ties traceability to product security and food safety. To remain competitive in international markets the US will need to evaluate its current traceability program.

Summary

The US will remain a leading supplier of red meat to the world and will provide a much differentiated product to the international markets as high quality grain fed beef. The US has the ability to be price competitive through production efficiencies and a lower valued US dollar. In the future the US will need to remain a leader in food safety, sustainability and animal welfare to remain competitive in foreign markets.

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